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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,013	08/08/2001	Thomas Ullein	ULLEIN	3599

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EXAMINER

JOHNSON, VICKY A

ART UNIT PAPER NUMBER

3682

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/925,013

Applicant(s)

ULLEIN ET AL.

Examiner

Vicky A. Johnson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 19-21 and 24-33 is/are rejected.
- 7) ☒ Claim(s) 11-18, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-10, 19-21 and 24-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith (US 6,361,458).

Re claims 1 and 25, Smith discloses a chain tensioner, comprising: a tensioner piston (130) bearing upon a chain; a cylinder (102) guiding the piston for movement in a direction of the chain and bounding with the piston a pressure chamber (180) for receiving hydraulic fluid; a leakage gap for migration of hydraulic fluid from the pressure chamber (col. 4 lines 33-38), and a control member (300) for at least reducing the leakage gap in size when a pressure in the pressure chamber increases (col. 4 lines 33-38).

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Re claim 2, Smith shows the control member is a valve (300) having a valve body (304) for bounding the leakage gap (col. 4 lines 63-66), said valve body being configured for displacement to at least reduce the leakage gap in size, when the pressure in the pressure chamber increases (col. 4 lines 25-38).

Re claim 3, Smith shows the valve body clears the leakage gap, when the pressure in the pressure chamber drops below a critical lower level, and at least reduces the leakage gap in size, when the pressure in the pressure chamber exceeds a critical upper level (col. 4 lines 30-38).

Re claim 4, Smith shows a first stop (310 and bottom of 306), wherein the valve body clears the leakage gap, when abutting against the first stop (col. 4 lines 66-67).

Re claim 5, Smith shows the first stop (bottom of 306) is formed by a valve seat (306), which defines the leakage gap in concert with the valve body (see Fig 2).

Re claim 6, Smith shows a valve spring (312) for biasing the valve body against the first stop (see Fig 2).

Re claim 7, Smith shows a second stop (320), wherein the valve body is configured to abut the second stop (see Fig 2) when the pressure in the pressure chamber increases to thereby at least reduce the leakage gap in size (col. 4 lines 30-38).

Re claim 8, Smith shows the second stop (320) forms a valve seat (306) for the valve body (302).

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Re claim 9, Smith shows the valve body (302) is moved away from the first stop (bottom of 306) in opposition to a spring action applied by the valve spring (312), as the pressure in the pressure chamber increases.

Re claim 10, Smith shows, wherein the control member is a valve (300) in communication with the pressure chamber (see Fig 2).

Re claim 19, Smith shows the valve body is configured as plunger (see Fig 2), which is guided in the cylinder for longitudinal displacement (see Fig 2).

Re claim 20, Smith shows the plunger defines the leakage gap in concert with the cylinder (see Fig 2).

Re claim 21, Smith shows, and further comprising a valve spring (312) for biasing the plunger in a direction toward a first stop, said piston clearing the leakage gap, when abutting against the first stop (see Fig 2).

Re claim 24, Smith shows a check valve (412) integrated in the plunger so that the plunger and the check valve form a structural unit (see Fig 4).

Re claim 26, Smith disclose the control member (302) is movable between first and second stops (valve moves between the bottom of 306 and 320) and spring-biased (312) to seek a position against a first stop, wherein the first stop has passageways (326) to allow seepage of hydraulic fluid through the leakage gap.

Re claim 27, Smith shows the first seat is formed with circumferential grooves to define the passageways (see Fig 7).

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Re claim 28, Smith shows the control member (300) moves toward the second stop (320) to at least reduce the fluid flow through the leakage gap, as the pressure in the pressure chamber rises (see Fig 2).

Re claim 29, Smith shows the control member is a ball valve (412) disposed between the first and second stops (see Fig 2).

Re claim 30, Smith shows the control member is a plunger (302) disposed between the first and second stops (see Fig 2).

Re claim 31, Smith shows a tensioner piston (130) bearing upon a chain; a cylinder (102) guiding the piston for movement in a direction of the chain and bounding with the piston a pressure chamber (180) for receiving hydraulic fluid; a first leakage gap formed between adjacent wall surfaces of the cylinder and the piston for migration of hydraulic fluid from the pressure chamber (139); a second leakage gap (326) for migration of hydraulic fluid from the pressure chamber; and a control member (300) for regulating a fluid flow through the second leakage gap in dependence on a pressure in the pressure chamber.

Re claim 32, Smith shows the control member reduces a fluid flow through the second leakage gap, as the pressure in the pressure chamber rises (see Fig 2).

Re claim 33, Smith shows the control member closes the second leakage gap, when the pressure in the pressure chamber exceeds an upper limit (col. 4 lines 33-38).

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***Allowable Subject Matter***

3. Claims 11-18, 22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

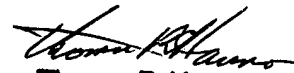
5,993,341	Anderson	(plunger)
6,383,103	Fujimoto et al	(relief valve)
4,997,411	Breon et al	(check valves)
6,193,623	Koch et al	(relief valve)
6,352,487	Tada	(relief valve)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (703) 305-3013. The examiner can normally be reached on Monday-Thursday (7:00a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Bucci can be reached on (703) 308-3668. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

vaj  
December 2, 2002

  
Thomas R. Hannon  
Primary Examiner